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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,827	08/15/2001	Dominik J. Schmidt	IVT.0021US	1388
21906 7590 02/27/2007 TROP PRUNER & HU, PC 1616 S. VOSS ROAD, SUITE 750 HOUSTON, TX 77057-2631			EXAMINER GREY, CHRISTOPHER P	
			ART UNIT	PAPER NUMBER
			2616	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/27/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

09/930,827

Applicant(s)

SCHMIDT, DOMINIK J.

Examiner

Christopher P. Grey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 1 and 24-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Dunn et al. (US 5625877)

**Claim 1** Dunn discloses sniffing for available frequency channels of the plurality of cellular channels via a mobile station (fig 4b, 330).

Dunn discloses requesting an allocation of cellular frequency channels from the mobile station in response to the request from the mobile station (Col 12 lines 17-42).

Dunn discloses receiving an allocation of available cellular frequency channels at the mobile station in response to the request from the mobile station (Col 13 lines 1-22).

**Claim 24** Dunn discloses receiving from a user of the mobile station a request for a bandwidth sufficient to communicate at least one file (Col 12 lines 17-42 and Col 8 lines 23-44).

**Claim 25** Dunn discloses determining a number of channels for the allocation request based on the size of the at least one file (Col 12 line 57-Col 13 line 22 and Col 8 lines 23-44).

**Claim 26** Dunn discloses receiving a request from a user receiving a request from a user of the mobile station to bond the allocated cellular frequency channels and a short-range radio channel (Col 12 lines 17-42 and Col 8 lines 1-67)

**Claim 27** Dunn discloses requesting the allocation of cellular frequency channels comprising requesting an allocation of preferably adjacent cellular frequency channels (portable terminal demands the master microprocessor for available radio channels (Col 12 lines 17-42 and element 101 in fig 1 and col 7 lines 5-37, col 8 lines 23-44).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 16-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosener et al. (US 2002/0028655), hereinafter referred to as Rosener in view of Dunn et al. (US 5625877)

**Claim 16** Rosener discloses a reconfigurable processor core, comprising one or more processing units (T28 GSM phone which can assume the identity of phone 101 typically include a processor, section 0060); a long range transceiver unit coupled to the processing units, the long range transceiver unit communicating over a plurality of cellular frequency channels (RF interface to communicate with base stations outside of the car section 0060); a short range transceiver coupled to the processing units

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(Bluetooth interface to communicate inside the car section 0060) and a radio frequency sniffer coupled to the at least one of the transceivers and an antenna coupled to the radio frequency sniffer (paragraph 0053, 0118).

Rosener does not specifically disclose at least one of the processing units calculating a number of cellular frequency channels to request from a base station for transmission of a file from the mobile device, the number of cellular frequency channels based on a size of the file.

Dunn discloses at least one of the processing units calculating a number of cellular frequency channels to request from a base station for transmission of a file from the mobile device (Col 12 lines 17-40), the number of cellular frequency channels based on a size of the file (Col 12 line 57-Col 13 line 22 and Col 8 lines 23-44).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the mobile phone as disclosed by Rosener to communicate with a microprocessor as disclosed by Dunn. The motivation for this modification is to employ a request and allocation technique for the allocation of a channel.

**Claim 17** Rosener discloses the reconfigurable processor core including a plurality of digital signal processors (paragraphs 0089, 0091 and claim 17).

**Claim 18** Rosener discloses the reconfigurable processor core including one or more reduced instruction set computer processors (claim 17 and fig 9).

**Claim 19** Rosener discloses a router coupled to the one or more processing units (to switch from direct RF interface to the use of Bluetooth interface , paragraph 0118-0119).

**Claim 20** Rosener discloses the short range transceiver being configured to communicate over a short range radio channel, further comprising a circuit configured to bind short range radio channel with the cellular frequency channels to increase bandwidth of data communication between the mobile device and a base station (paragraphs 0060, 0118-0119).

**Claim 21** Rosener discloses the reconfigurable processor core comprising an integrated circuit formed on a single substrate including the one or more processing units, the long range transceiver, and the short range transceiver (see figs 9 A and B).

**Claim 22** Rosener discloses the RF interface communicating with a base station (paragraph 0060, inherently requesting data communication).

**Claim 23** Rosener discloses the reconfigurable processor core being configured to determine a number of channels to be used for the data communication based upon a user request for the data communication. (paragraph 0096)

3. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn et al. (US 5625877) in view of Arazi et al. (US 6430395)

**Claim 2** Dunn does not specifically disclose communicating on a short-range radio channel.

However, communication on a short-range channel is well known in the art of communications. Ariza teaches a cellular handset communicating with a base station via a short-range communication link (Col 16, lines 50-67).

It would have been obvious to one of the ordinary skill in the art at the time of the invention was made to implement the techniques short range radio channel taught by Ariza within the system of Dunn in order to allow the laptop computer and the subscriber remote unit illustrated in fig 1 of Dunn to communicate wirelessly, thus the short range radio channel replaces the cable connection.

**Claim 3** Dunn does not specifically disclose the short-range channels being Bluetooth or WLAN.

Ariza discloses the short-range radio channel being Bluetooth or WLAN (Col 16 lines 50-55).

**Claim 4** Dunn in view of Ariza teaches all of the limitations. Arazi discloses a cellular handset with Bluetooth technology (inherently a long range and short range radio channel). Dunn teaches (short range radio channel with cellular frequency channels to increase bandwidth) aggregating radio channels to increase bandwidth (Col 10 lines 20-42). Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention was made to combine the system of Dunn and Arazi in order to aggregate the radio channels and allow the user of the laptop computer to receive data over the wireless link (cellular and Bluetooth links).

4. Claims 2-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn et al. (US 5625877) in view of Rosener et al. (US 2002/002865), hereinafter referred to as Rosener.

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**Claim 2, 3** Dunn does not specifically disclose communicating on a short-range radio channel.

Rosener discloses a wireless device communicating on a short-range radio channel such as Bluetooth (paragraph 0060).

It would have been obvious to one of the ordinary skill in the art at the time of the invention that a wireless device such as that disclosed by Dunn is capable of communicating on a short range channel as is well known within the art.

**Claim 4** Dunn does not specifically disclose the applicants claimed characterizing the ambient radio environment and dynamically discovering available and active radio protocols including the short-range radio channel.

Rosener discloses characterizing the ambient radio environment and dynamically discovering available and active radio protocols including the short-range radio channel (paragraph 0060, 0067, 0101, 0118).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the repeater circuitry as disclosed by Rosener within the mobile station as disclosed by Dunn. The motivation for this combination is to allow multi-protocol operations to support both Bluetooth and cellular communication (see abstract).

**Claim 5, 6** Dunn does not specifically disclose substituting the short-range radio channel with at least one of the allocated cellular channels if the short-range radio channel becomes unavailable.



Rosener discloses substituting the short-range radio channel with at least one of the allocated cellular channels if the short-range radio channel becomes unavailable (paragraphs 0018, 0125 and 0126).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the repeater circuitry as disclosed by Rosener within the mobile station as disclosed by Dunn. The motivation for this combination is to allow multi-protocol operations to support both Bluetooth and cellular communication (see abstract).

**Claim 7** Dunn discloses sniffing for available frequency channels as disclosed in the rejection of claim 1, where it would have been obvious to one of the ordinary skill in the art at the time of the invention that some form of circuitry is necessary to perform such a function, and furthermore, more than one sniffing circuit may be used to accomplish the sniffing task, and this combination of circuits is deemed as a parallel combination.

**Claim 9** Dunn does not specifically disclose bonding the short-range radio channel with the allocated cellular frequency channels to increase bandwidth of data communication between the mobile station and the base station.

Rosener discloses disclose bonding the short-range radio channel with the allocated cellular frequency channels to increase bandwidth of data communication between the mobile station and the base station (paragraph 0060, 0018-0119).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the repeater circuitry as disclosed by Rosener within the mobile

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station as disclosed by Dunn. The motivation for this combination is to allow multi-protocol operations to support both Bluetooth and cellular communication (see abstract).

### ***Response to Arguments***

5. Applicant's arguments filed on December 5, 2006 have been fully considered but they are not persuasive.

(a) The applicant argued that the cited art does not specifically disclose the applicants claimed sniffing for available cellular frequency channels in a mobile station.

The examiner maintains that the claimed limitation is addressed within the rejection of claim 1, wherein the remote unit initiates and triggers a request for the search, location and allocation of available channels (Col 12 lines 16-29 and fig 2a, 129).

(b) The applicant argued that the cited art does not specifically disclose the applicants claimed determining in a mobile station a number of channels for an allocation request based on a size of a file to be transmitted.

The examiner maintains that the rejection of claim 25 discloses the claimed limitation, wherein Dunn discloses determining the size of file to be communicated (fig 2a, 124) and making a request based on this determination (fig 2a, 129).

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(c) The applicant argued that the cited art does not disclose the applicants claimed calculating a number of cellular frequency channels to request from a base station.

The examiner maintains that the rejection of claim 16 discloses calculating the number of channels where a determination of whether the channel is a single channel or aggregated channels is determined (fig 2a, 126) and identifying available airlink channels (fig 2a, 134).

(d) The applicant argued that the cited art does not disclose the applicants claimed short-range channel b/w a mobile device and base station.

The examiner maintains that the rejection of claim 2 discloses the claimed limitation, wherein Rosener discloses a bluetooth interface that communicates with a repeater, where the repeater communicates with the base station, thus a channel is formed between bluetooth interface and base station (see fig 1, 103 and 105 in communication).

The examiner also notes that the channel formed between the phone and the repeater is a short-range channel, and that channel is formed in between the communication of the phone and the base station.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a) Wilson (US 4977612) discloses evaluating a channel quality (sniffing), registering on a channel (request) and operating on a channel (allocate) as shown in fig 4.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

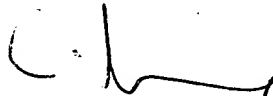
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Grey whose telephone number is (571)272-3160. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571)272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher Grey  
Examiner  
Art Unit 2616

  
2/26/07

  
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